

Application Serial No.: 09/774,177
Amendment dated October 24, 2003
Reply to Office Action dated April 24, 2003

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 17-25 are presently active in this case, Claims 17-19 and 21 having been amended and Claims 22-25 having been added by way of the present Amendment.

In the outstanding Official Action, Claims 19-20 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 has been amended to change the phrase "reinforcing filaments" to "filaments." Thus, the Applicant submits that there is no longer any redundant use of the word "reinforcing." The Applicant submits that Claim 20 further limits Claim 18 by reciting that the strands present within the claimed mat are continuous strands. As noted in the Bolen et al. reference (U.S. Patent No. 3,936,558) in column 1, lines 26-30, it is possible to have a mat formed of bonded webs of chopped (i.e., non-continuous) strands. Accordingly, the Applicant respectfully requests the withdrawal of the indefiniteness rejections.

Claims 17-21 were rejected under 35 U.S.C. 102(b) as being anticipated by the Bolen et al. reference. For the reasons discussed below, the Applicant requests the withdrawal of the anticipatory rejection.

Independent Claims 17 and 21 of the present application each recite a mat comprising at least one first layer of at least one strand formed of filaments that are at least partly opened by subjecting the at least one first layer to a flow of fluid, and at least one second layer of at

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least one strand formed of filaments, wherein the at least partly opened at least one first layer and the at least one second layer are superposed.

The Applicant submits that the Bolen et al. reference does not disclose such a mat.

The Bolen et al. reference describes a fibrous body that includes at least two layers of strands of continuous filaments and binder particles in each layer. The fibrous body is formed by laying down layers of groups (58) of strands (28) on a conveyer (61). Figure 5 depicts a mat (60) that incorporates upper and lower surface layers (80) of light strands and a central body portion (82) of heavier strands. The mat (60) leaves the strand deposition position area and is conducted through a binder application area. At a first liquid impingement or flooding station (170), a liquid suspension material (174) is distributed evenly across the mat-like collection of strands. A second liquid impingement station (180) is spaced a distance from the first impingement and flooding station (170).

In the Bolen et al. reference, all of the layers of strands are provided onto the conveyer (61), and then binder is applied to the layers. Accordingly, it is difficult to control the dispersion of binder through out the mat (60) and to control the degree of opening of any given layer. The present invention advantageously provides at least one first layer of at least strand formed of filaments that are at least partly opened, and superposes the at least partly opened at least one first layer on the at least one second layer. Such a configuration is not taught or suggested by the Bolen et al. reference. The present invention thereby provides a partly opened first layer that is superposed with a second layer to provide a precisely formed mat.

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The Applicant submits that since the Bolen et al. reference does not teach all of the limitations recited in Claims 17 and 21, then Claims 17 and 21 are not anticipated by the Bolen et al. reference. Accordingly, the Applicant requests the withdrawal of the anticipation rejection of Claims 17 and 21.

Independent Claim 18 and newly added Claim 24 advantageously recite a mat comprising at least one first layer of at least one strand formed of filaments that are at least partly opened, and at least one second layer of at least one strand formed of filaments which are held together within the strand, wherein the at least one first layer has a filament dispersion gradient. In Claims 18 and 24, not only does the at least one first layer include at least one strand formed of filaments that are at least partly opened, but also the at least one first layer has a filament dispersion gradient. Such a mat is not disclosed in the Bolen et al. reference.

The Bolen et al. reference does not disclose a mat having a layer having a filament dispersion gradient. The portions of the Bolen et al. reference cited in the Official Action describe having variations from layer to layer, but does not describe a filament dispersion gradient within a layer. Accordingly, the Bolen et al. reference does not disclose all of the limitations recited in Claims 18 and 24, and thus the Bolen et al. reference does not anticipate Claims 18 and 24.

Claims 19 and 20 are considered allowable for the reasons advanced for Claim 18 from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed, taught, nor suggested by the applied references when those features are considered within the context of Claim 18.

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Newly added Claims 22, 23, and 25 are considered allowable as they recite features of the invention that are not taught by the Bolen et al. reference. (See, for example, page 10, lines 10-16, for support for these claims.) As noted above, in the Bolen et al. reference, all of the layers of strands are provided onto the conveyer (61), and then binder is applied to the layers.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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